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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CARLSON, JEFFREY D

ART UNIT

PAPER NUMBER

3622

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/648,599

Applicant(s)

MEHTA ET AL.

Examiner

Jeffrey D. Carlson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the paper(s) filed 3/21/05.

Claim Objections

2. Claims 9 and 11-20 are objected to because of the following informalities:
 - Claim 9 line 2, "level" should be replaced by —class—for consistency.
 - Claims 11-20 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. These claims mix statutory classes and fail the infringement test in MPEP 608.01(n) as being an improper dependant claim. A CD-ROM having instructions to perform the method steps of claim 1 would infringe claim 11, but not the method claim 1 since the CD-ROM itself only stores steps, it does not *perform* them. Mere possession of such a CD-ROM would infringe claim 11, but not the associated method claim.

Appropriate correction is required. Applicant should re-write the computer-readable medium claims as independent claims.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-10 are rejected under 35 U.S.C. 101 because they are not "within the technological arts." Applicant must set forth non-trivial (such as mere input/output of data) steps in the body of the claim which are carried out by a computer. Examiner suggests including language that states a computer performs the comparing and selecting steps in order to overcome this rejection. The basis for this rejection is detailed below.

As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a patent to "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition or matter, or any new and useful improvement thereof." Therefore, a fundamental premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right to the inventors for "inventions" that promote the progress of "science and the useful arts". The phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts".

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature", "natural

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phenomena", and "abstract ideas". See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete and tangible result." See *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998).

This "two prong" test was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson*, 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the issue of the "technological arts". The court developed a "technological arts" analysis:

The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on whether the claimed subject matter is presently perceived to be an improvement over the prior art, e.g., whether it "enhances" the operation of a machine. *In re Toma* at 857.

In *Toma*, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never addressed this prong of the test. In *State Street Bank & Trust Co.*, the court found that the "mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a "useful, concrete and tangible result". See *State Street Bank & Trust Co.* at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, *State Street* abolished the Freeman-Walter-Abele test used in *Toma*. However, *State Street* never addressed the second part of the analysis, i.e., the "technological arts" test established in *Toma* because the invention in *State Street* (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the *Toma* test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences (BPAI) in affirming a §101 rejection finding the claimed invention to be non-statutory. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 4-7, 9, 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Carruthers et al (US2002/0128904).

Regarding claims 1, 5-7, Carruthers et al teaches systems and methods for selecting an ad to include with a requested for content having an ad slot [¶ 7, 26]. Carruthers et al provides a prioritized master list of ads which provides an order for the ads to be displayed [¶ 34]. Each ad has a delivery criteria that is compared to the slot attribute (for example, the type of user requesting the content – ¶ 38) in order to determine a qualifying subset of ads from the prioritized master list. The ad chosen from the qualifying subset of the master queue is taken to be chosen based upon the sequence of the prioritized queue.

Regarding claims 4, 10, Carruthers et al teaches that ads have delivery constraints such as maximum impressions or time between impressions. If this is the case, the ad is removed from the qualifying subset so that it is not showed again. This is taken to provide a step of including only ads that are not on track to be satisfied and removing all ads whose constraint is “on-track” or has been met.

Regarding claims 9, Carruthers et al teaches that there is another type of ads – default or filler ads. These ads are used when the requesting user is not eligible for any

active ads. Also, opportunities for “instant” ads such as when a user performs a search or requests a particular URL are solved by providing such filler ads. This is taken to provide a second priority class of ads to be used when no higher priority ads are available.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 2, 3, 8, and claims 4, 10 (alternatively) are rejected under 35 U.S.C. 103(a) as being unpatentable over Carruthers et al.**

Regarding claims 2, 3, Carruthers et al prioritizes the queue of ads based upon priority, a weighting indicating the number impressions needed and based upon feedback from the system regarding which ads have been shown [¶ 34, 35]. Further, Carruthers et al states that new, proposed campaigns are analyzed and added to the system if they can be accommodated based on the expected ad inventory [¶ 8]. Carruthers et al recognizes that the slot inventory is limited, that all requesting advertisers cannot necessarily be satisfied and they put to use a well known concept of “first-come first served” in that the first advertisers to make ad campaign contracts with the system of Carruthers et al are more likely to get their ads shown by the system than latecomers. It would have been obvious to one of ordinary skill at the time of the

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invention to have given further improved treatment to early advertisers by employing such a well known “first come, first served” notion and prioritized the master list of scheduled ads based upon when the advertisers contracted with the system. Further, it is pointed out that applicant states the invention is designed to eliminate the problem of an advertiser inflating the number of requested ad impressions in order to get their ads shown more often in a system that delivers ads for campaigns which are not on-track. However, applicant’s system does not eliminate this problem. Any advertiser in applicant’s system that inflates the actual number of impressions desired will prevent advertisers behind them in line from getting their ads shown. The first advertiser to inflate their requests will get all of their ads shown. This system merely lets those at the front of the line dictate how much is left for others behind them in line – much like the well known “first come, first served” approach.

Alternatively regarding claims 4, 10, Carruthers et al teaches that each ad has delivery obligations and that determinations are made regarding whether the ad is “on track” or not. Carruthers et al demotes ads if they are on-track or have already met their delivery goals by moving them towards the bottom of the queue [¶ 35]. Carruthers et al states that ads ahead of schedule (i.e. on-track) are “effectively shut-off” by being placed at the end of the queue. Although this is taken to be effectively removed from the list, it would have been obvious to one of ordinary skill at the time of the invention to have removed such ads from the list entirely in order to ensure only ads that are behind schedule are selected.

Regarding claim 8, Carruthers et al does not appear to specify or restrict the type of content requested to a particular format in order to include the specified advertising. Carruthers et al teaches that the ads can be banner ads or pop-up ads [¶ 15]. Carruthers et al further states that users can access files of various types via the Internet (text, images, video, etc) [¶ 20]. It would have been obvious to one of ordinary skill at the time of the invention to have provided such advertising associated with any type of electronic content such as a video stream, or even a web page that includes an embedded video stream as is well known, so that advertisers can reach a wide audience and content providers can earn advertising revenue for a variety of pages.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey D. Carlson whose telephone number is 571-272-6716. The examiner can normally be reached on Mon-Fri 8:30-6p, (off on alternate Fridays).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on (571)272-6724. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jdc

A handwritten signature in black ink, appearing to be 'J. P. C.', located to the right of the typed name 'jdc'.